



### About the Mathematics

The document *Higher\_Order\_Derivatives\_CASonly.tns* allows students to see higher order derivatives easily through the use of an interactive math box, CAS, and a slider.

### Math Objective

- Students will have the opportunity to examine higher order derivatives using Computer Algebra System (CAS).

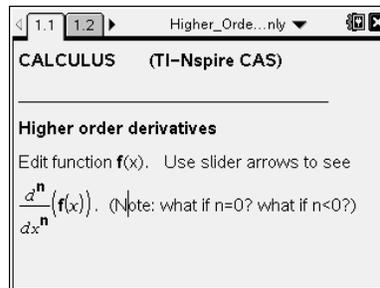
### Using the Document

Page 1.1 provides the title page and instructions. Page 1.2 allows the user to define the function  $f(x)$  and then see its higher order derivatives through the use of a slider.

NOTE: TI-Nspire CAS is needed for using this document.

### Possible Application

The document also can be used to examine what a zero order derivative is (the original function) and even *negative* order derivatives (naturally, antiderivatives!).



### TI-Nspire™ Technology Skills:

- Download a TI-Nspire document
- Open a document
- Move between pages
- Click on a minimized slider
- Define a function in a math box

### Tech Tip:

- Make sure the font size on your TI-Nspire handheld is set to Medium.

### Lesson Materials:

*Higher\_Order\_Derivatives\_CASonly.tns*